WiFi Configuration Guide

Amp’ed RF Technology, Inc.

Configuration Commands

This document describes the system configuration variables of the WiFi Serial Interface with their default and range. These values are stored in the non-volatile memory of the module.

1. Usage

1.1. Set/update

To set a configuration variable enter:

```
at+wf config xxxx = yyyy
```

Where "xxxx" is the variable name and "yyyy" is the value to set. A variable name may also be specified as "varzz". Where zz is the sequence number of the variable.

1.2. Inquiry

An inquiry may be made using:

```
at+wf config xxxx
```

Where “xxxx” is the variable name. The reply will be the current setting.

1.3. Listing

All non-hidden variables may be listed using:

```
at+wf config
```

2. Configuration Parameters

System Configuration Settings - Version 4.2
Note: All changes require a Reset to take effect

Name	Default	Range	Description	V4.3
BuildVersion	151202A		Date code version of the software (read only)	✓
DeviceName	Amped WIFI		Up to 20 characters are allowed (case sensitive)	✓
MAC_ADDR	00043e212345		WiFiMAC address (read only)	✓
DHCPMode	true	true=enable DHCP false=disable DHCP	DHCP on/off.	✓
IPAddress	192.168.0.2		A static IP address, when DHCP off or failed, it will be used	✓
Netmask	255.255.255.0		Netmask of the network	✓
GateWay	192.168.0.1		Gateway of the network	✓
SSID	Amped RF		ESSID of the Access Point connection destination	✓
PassPhrase	12345678		Password of the Access Point to connect	✓
AuthType	1	0=NONE 1= WPA2-PSK	WIFI encryption methods	✓
HostIPAddr	192.168.0.10		Remote device's IP address	✓
IPProtocol	1	0=TCP Server 1=UDP 2=TCP client	Protocol type	✓
HostPort	2015		Remote device's listen port number.	✓
LocalPort	2015		Local listen port number.	✓
UartBaudrate	115200	2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, 460800, 921600	UART baudrate. Typical: 115200 and 921600	✓
UartParity	none	odd, even, none	UART parity. Typical: none	✓
UartDataBits	8	8, 9	UART data bits per character. Typical:8	✓
UartStopBits	1	0.5, 1, 1.5, 2	UART number of stop bits.Typical:1	✓
UARTFlowControl	False	True= enable UART hardware RTS/CTS flow control False= disable RST/CTS flow control	UART hardware flow control.	✓
UartTimeout	16	8 - 255	Timeout used to determine the end of a message in units of bit times. Typical: 16	✓
ATReply	AT-WF		AT command reply prefix. All events that are displayed are prefixed by this character string (case sensitive)	✓
HostEvents	TRUE	True=on; False=off	Host events display on/off.	✓
Hardware	WF43		Module hardware type. (read only)	✓
CpuMHz	42		Module's CPU speed: 42Mhz is supported	✓
DeviceMode	STA	0=STA; 1=AP	WIFI module operation mode	✓
OutMtuSize	1400	1 - 1420	Packet size of UART received. Typical:1400	✓
MaxSTACount	5	1-12	Maxim station number in AP mode.	✓

			Typical:5	
MPMode	0	0=Disable; 1=Enable	Multiple connections on/off	✓
HostShallowSleepEn	False	True= enable enter Shallow Sleep mode False= disable enter Shallow Sleep mode	Enable/disable Shallow Sleep mode	✓
HostDeepSleepEn	False	True= enable Deep Sleep mode False= disable Deep Sleep mode	Enable/disable Deep Sleep mode	✓
Channel	1	2.4GHz: 1-13 5GHz: 36-165	Set the WiFi channel for AP mode (no effect in STA mode). Valid entries are: 2412-2472 MHz: 1,5,9,13 5180-5240 MHz: 36,40,44,48 Indoor band: 5260-5700: 52,56,60,64,100,104,108,112,116,120,124,128,132,136,140 5745-5825 MHz: 149,153,157,161,165	✓
StationInactive	120	15-255second	When StationInactive time passed, station didn't send any data, AP will confirm whether station still in region	✓
AudioMode	1	0=DLNA; 1=Airplay	Choose the audio mode	✓
AutoJoin	false	False:disable autojoin True: enable autojoin	Autojoin function enable/disable	✓
SPIEnable	false	False:disable SPI True:enable SPI	Enable/Disable SPI interface for Bypass mode data passthrough. Use UART when SPI is Disable. Command mode always uses UART.	✓
SPIMode	slave	Master or Slave	Set SPI interface role (Master or Slave)	✓
GPIO_HostWakeup	none	none: disable gpio wake up function x(1...6): set GPIOx as wake up pin	GPIOx HIGH: enter into active mode form sleep mode. GPIOx LOW: enter into sleep mode from active mode.	✓
DnsMode	IP	IP or DNS	IP = IP address for target endpoint, DNS = Domain name lookup for target endpoint.	✓
DnsDomainName	NA		Domain used in DnsMode above.	✓

Note: configurations listed with *Typical* parameters are the values that Amp'ed RF Technology has tested internally. Other values have not been tested.